Czech Public and Occupational Pension Schemes and Reforms

České veřejné a zaměstnanecké penze a jejich reformy

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Abstract

The Czechoslovak communist retirement protection scheme resembled the Bismarckian earnings-related pensions, with new benefits close to final salaries and with their insufficient indexation. The aim of this paper is to evaluate the reform processes in Czechia and the potential for a simple technical reform that would make the public retirement schemes understandable and efficient. In the process of the transition to capitalism under liberal Czech governments, the prevailing concept of the public retirement scheme changed to a Beveridge model of pensions not being related to previous wages. The insufficient valorisation of bend points was the main method of this transition. Modern international pension theory recommends the separation of a solidary pillar and an earnings-related pillar. After the Czech "small" pension reform, a basic technical reform may be simply realised, resulting in a higher flat-rate pension and an NDC pension insurance scheme, convenient to parties with programmes based on three basic welfare regimes. The introduction of occupational pension schemes is necessary to reflect the specifics of arduous occupations.

Keywords

retirement pension, welfare regimes, occupational pension schemes, pension pillars, Bismarck system, Beveridge system

JEL Codes

H55, J26, H 53, H24

Abstrakt

Československý komunistický systém důchodového zabezpečení připomínal bismarckovské penze závislé na výdělku, s nově přiznanými dávkami blízkými výdělkům v předdůchodovém věku a s jejich nedostatečnou indexací. Cílem příspěvku je zhodnocení reformních procesů v Česku a analýza potenciálu jednoduché technické reformy, která by učinila veřejný penzijní systém srozumitelným a efektivním. V procesu přechodu ke kapitalismu za českých liberálních vlád došlo ke změně převažujícího konceptu veřejných penzí na Beveridgeův systém penzí nezávislých na předchozích výdělcích. Hlavní metodou tohoto přechodu byla nedostatečná valorizace redukčních hranic. Moderní mezinárodní penzijní teorie a politika doporučuje oddělení solidárního penzijního pilíře a pilíře s penzemi závislými na výdělku. Po „malé" důchodové reformě lze snadno provést základní technickou reformu veřejných penzí, spočívající v přechodu na poměrně významný rovný důchod a na sociální starobní pojištění typu NDC, která by vyhovovala stranám, majícím program založený na třech základních sociálních modelech. Zavedení zaměstnaneckých penzí je nezbytné k zohlednění specifik fyzicky náročných zaměstnání.

Klíčová slova
starobní důchod, sociální modely, zaměstnanecké penze, penzijní pilíře, Bismarckův systém, Beveridgeův systém

Introduction

The aim of this article is to compare the Czech system of public and occupational pension schemes with internationally recognised pension theory and policy and then formulate fundamental reform proposals that could be used by Czech political parties and future Czech governments. We base our assumptions on the summary of elementary pension policies across the world and apply them using Esping-Andersen's welfare regimes theory (1990) regarding the issue of pensions. We extend the scale of "his" pension regimes from three to four by using Bovenberg and Ewijk's (2012) typology, while retaining the terminology of Esping-Andersen, and adding the neoliberal welfare regime which has been developed since the 1990s. We assume that the selection of a welfare regime is a result of public choice in the sense of modern public policy. Ideally, each pension system should be based on one of the four welfare regimes. This is particularly significant for Czechia, where the pension system has undergone many transformations since 1990 without an attempt to introduce a comprehensive welfare regime, albeit in the basic pension pillar.

The first part of the article will deal with the development tendencies of pension theory and policy, in the context and respecting the four welfare regimes and main typologies of pensions systems and pillars. The second section then focuses on the evaluation of reforms of the Czech public pensions from the systemic point of view. The third section will deal with potential reform alternatives to the existing "pension insurance". In discussions and preparation of reforms, the NDC (notional/non-financial defined contribution) scheme had a very specific role and is analysed in the fourth section. The fifth and sixth sections deal with occupational pension schemes – the theory and Czech policies. In the last section, we show that the creation of a comprehensive and comprehensible system of public and occupational pension schemes is relatively very easy under the current circumstances, if modern and proved pension policies are applied.

1 Pension welfare regimes

From the general theory perspective, it would be ideal if every individual provided for themselves for old age. However, this does not work, and the theory only explains that this is the result of a certain "myopia" in the actions of people and, objectively, also the unpredictability of how long we will stay alive (longevity risk). The willingness to purchase an old-age pension for life under "standard market conditions" is very low, and the generally recognised "failure" of this market is an intrinsic part of it. In principle, old-age security within the family is non-existent in a modern society and neither is a "child pension" project under which full public pensions should only be provided to parents of three and more children and a proportional share to parents of one or two children (Sinn 2004) a viable solution.

The classic liberal welfare regime works only with general social assistance provided by municipalities, charities or the state. Everything else is an exception to the general rule. These exceptions may include annuities of military personnel or civil servants. General public pensions are as out of the question as any other motivation for taking out personal pensions. The brilliant advocates of an "absolute" liberal order have even strongly opposed occupational pension schemes (and other employee benefits, particularly the provision of medical care or health insurance to employees) – as by doing this we would depart from the economic optimum, and products that do not correspond to their individual preferences are forced upon employees as a result.

The modern liberal welfare regime is based on the cognition that "freedom and choice" do not work much in reality. It is practical to take care of the elderly (voters) much more and better than using the final social protection benefit – general social assistance. The provision of a means-tested pension – naturally a "non-contributory", tax-financed benefit – is a minority alternative in modern liberal welfare regimes. An example of such a means-tested pension is the "Age Pension" in Australia providing – together with means-tested supplements and rent allowance – an income exceeding the poverty line used in the EU (60% of income median) even for the poorest senior citizens.

The majority, fully prevailing alternative of the modern liberal welfare regime is the provision of a universal, flat-rate old-age pension to all residents who have reached the fixed statutory retirement age. Under identical circumstances, the flat-rate pension is financially more demanding for the state, but it is much less demanding on administration and in a way, it is fairer, as it is a pension for everyone. Except for the retirement age, the only "tested" matter is the period of residence in the given country. The pension of immigrants is reduced: e.g. in the Netherlands, 40 years of residence is required for a full flat-rate pension of 30% of national average earnings (NAE).

The "Superannuation" in New Zealand may serve as an example of a flat-rate pension, financed from taxes and providing an income exceeding the poverty line according to the OECD (50% of the income median). The flat-rate pension for two seniors living together is usually determined using the "65 at 65" rule – at 65 years of age the couple is entitled to an after-tax pension of 65% of net NAE. Thus, as of 1 April 2017, a couple receives $1,363.20 for two weeks, $1,200.60 after tax. The pension of a single senior is by 32% higher than the pension of a couple divided by two. Therefore, the economies of scale for couples are reflected.

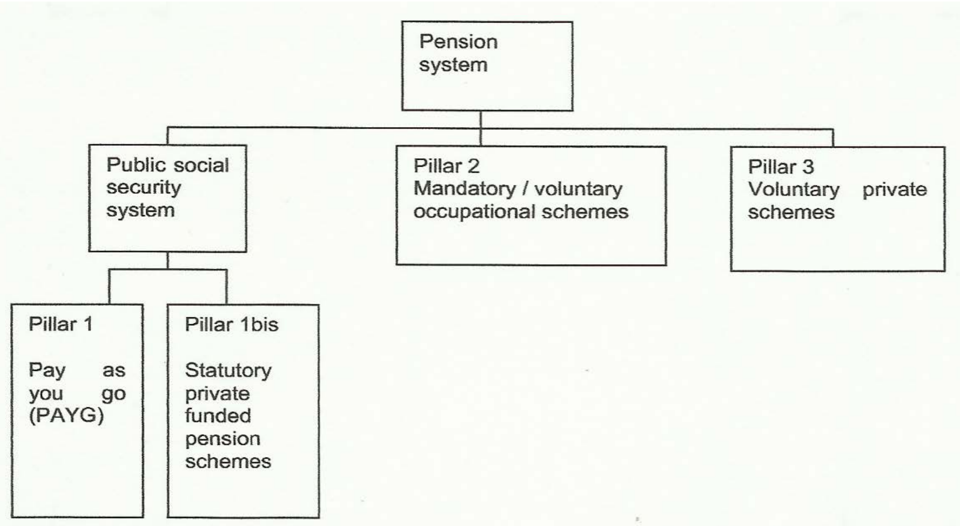
The British state pension is more complicated and significantly lower: following the recent increase (at the expense of the state second pension) it amounts to 26-27% of net NAE. From the model perspective, an important complication in the British system is the existence of national insurance contributions (NICs), which were originally introduced after World War Two in the form of a head tax paid by employees regardless of their amount of earnings. This concept was recommended by the Beveridge Commission; Beveridge, as a liberal, put an emphasis on insurance: 'It is, first and foremost, a plan of insurance – of giving in return for contributions benefits up to subsistence level, as of right and without means test, so that individuals may build freely upon it' (Beveridge 1942). With the later introduction of the state earnings-related pension scheme (with an option of contracting-out to an occupational pension scheme) NICs were transformed to a percentage payroll tax that does not have an entirely logical construction. Currently, employees pay NICs of 12% from wages over £157 weekly and 2% from wages over £866 weekly. The employer pays NICs of 13.8 % from wages over £157 weekly. The British tax commission headed by Mirrlees (2011) recommended to merge income tax and NICs. In relation to pensions, it is more than interesting that when the retirement age (65 years) is reached, NICs are no longer paid. NICs represent the second-largest British tax channel, yielding over 22% of tax revenue.

Public pensions that are not earnings- or income-related are often internationally recognised as belonging to the Beveridge model; the Bismarck model with fully earnings-related pensions is its exact opposite. The OECD progressivity index is designed to summarise in a single number the relationship between pension in retirement and earnings when working. The results show variation from 100 in pure basic schemes (such as Ireland and New Zealand) to zero in Hungary. The average index across OECD countries is 39. Regional differences are striking, with the index averaging 82 in the Anglophone countries: public pensions are strongly progressive. In Southern European countries, by contrast, it averages 23, indicating a very strong link between earnings and pension benefits (OECD, 2015).

Flat-rate pensions have existed in many countries. They are a basic alternative to current solidary pension pillars. Liberal countries have established other pension pillars that cannot be automatically considered part of the modern liberal model. A modern liberal model can also be characterised as a social-liberal model; social pension insurance or quasi-mandatory systems of occupational pension schemes should not be prevalent in the model.

The conservative (Christian-democratic) pension welfare regimes represent a mix of different concepts of pension protection – for different social groups, proportionally to their specific position ("performance") and relevant needs. These include both the protection of civil servants by the "retirement salary", generally at the level of the pre-retirement salary, and originally low workers and higher clerks' disability, survivor and old-age pensions from systems of social insurance in the private sector, as well as voluntary occupational pension schemes. Even though there has been a significant integration of the largest systems of social insurance which existed in parallel in the relevant countries, significant differences between social groups persist. Even today, some social groups (e.g. freelancers or the self-employed) do not have a mandatory social pension insurance. Different occupational pension schemes, representing the second pension pillar, are an intrinsic part of the conservative model. The third pillar is personal pensions, supported by the state e.g. by applying one of the tax theories, according to which contributions to pension savings should be deducted from the income tax base and payments under these savings schemes should be fully taxed. This is a system of a "deferred" income tax, in short EET (with the contributions being exempt from tax /E/, yields not taxed /E/, pay-outs fully taxed /T/).

Figure 1: Classification of pension systems



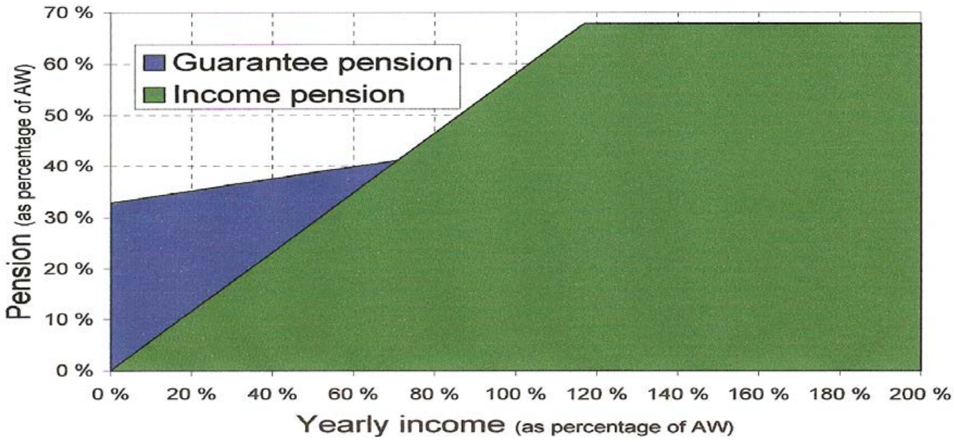
Source: Eichhorst et al. (2011)

It is typical of conservative (Christian-democratic) welfare regimes that they comprise no solidary pension pillar – flat-rate pensions or means-tested pensions. We can encounter tested pensions, for example, in Germany, however they are strictly classified as social assistance benefits, not benefits under the pension system. The Bismarck model is typical of a conservative pension system, even though Bismarck introduced in Germany old-age pensions as an additional benefit in workers' social disability insurance that were very low – and predominantly flat-rate, also owing to a flat state contribution. In this pension scheme, disability pensions prevailed in the Western Germany as late as the 1950s, when Adenauer started the concept of old-age pensions sufficiently replacing previous earnings (while reflecting the lower consumption of the elderly). The Adenauer concept of old-age pensions from the social insurance of employees (clerks and workers) thus created little room for occupational and personal pensions. Half a century later, the German policy has changed: today, it should achieve the same by using all three above mentioned pillars, currently with an emphasis on occupational schemes.

Regarding the three model pension pillars in the conservative (Christian-democratic) welfare regime, the EU uses a classification of pension systems (see Figure 1) that tries to merge what others (and we) consider non-mergeable – solidary pensions are added to the first pillar (flat-rate and means-tested pensions) and the whole is referred to as public pensions. They include both Bismarck- and Beveridge-type pensions. It is even more peculiar that renowned authors have added mandatory private pension schemes introduced partially in almost every postcommunist country to this pillar. (Just as well as referring to them as "Bs" of the first pillar: pillar 1bis.) Such a classification may encompass all of the European systems of old-age pensions; however, it does not reflect the significant differences between them.

Social-democratic pension welfare regimes have developed from the original liberal systems (based on a flat-rate pension) by adding a universal social insurance pillar built on the equivalence between the paid premiums and assessed old-age pensions. With this concept (ideology) the solidary state pension pillar must be designed to protect adequately low-income senior citizens (not only employees), residing in the given country over an extended period (and not requiring long-term care). An appropriate benchmark would be the at-risk-of-poverty rate used in the EU. A social-democratic model is oriented towards providing earnings-related pensions for middle-income employees. The solidary pension pillar is closely related to this insurance pillar, e.g. in Sweden or Norway, the amount of the "guarantee pension" is determined while considering the amount of the NDC type insurance pension. Housing benefit for seniors is a significant supplement to solidary pensions – in fact, it is a second component of the solidary pension pillar, important for the elimination of poverty of the elderly. In countries with a policy of this type, quasi-mandatory systems of occupational pensions covering more than 90% of employees based on collective agreements, agreed either at national or sectorial level, play a key role. Similarly to the liberal regime, the social-democratic welfare regime refuses state support of the third pension pillar and other financial products. In the social-democratic model, the role of the personal pensions pillar is entirely marginal.

Figure 2: Norwegian Income pension (NDC) and Guarantee pension (43 years of insurance, percentages of NAE)



Source: Christensen et al. (2012)

In conservative (Christian-democratic) and social-democratic systems, social pension insurance dominates with occupational pensions mostly taking a significant role. The role of a solidary pillar represents the significant structural difference between these two social models (systems). The original version of the social-democratic model included a flat-rate pension (with social insurance being a superstructure); the modern version is centred around social insurance and the solidary pillar predominantly includes the income-tested old-age pension, a direct supplement to the insurance pillar. Figure 2 illustrates the coexistence of modern NDC social insurance, herein referred to as income pension, and the NDC pension-tested pension (guarantee pension) in Norway. In 2014, the minimum pension under this two-pillar-system amounted to approx. 31% of NAE (OECD, 2015) for singles. Senior housing benefits are common follow-up allowances in these systems (all-income-tested once a year), granted for one year.

The public pensions in social-democratic welfare regimes knowingly combine the Bismarck and Beveridge models. In this regard, there is a clear effort to achieve high efficiency while maintaining relatively high equity.

Neoliberal pension models place an emphasis on mandatory private pension savings regulated by the state. The economics of these pension savings assumes high investment yields that would also cover the high margins of private providers of pension savings or insurance. If the yield for the client were on average e.g. 5% annually (inflation-adjusted), then the accumulation factor after 40 years of saving with this interest rate would be more than three. Thus, the client would receive three times what they had put into the system. The neoliberal concept seems a radical solution to the pension problem related to population ageing. To support the privatisation of social old-age insurance schemes, the so-called Aaron rule, which compares arithmetically the interest yield of private savings in the funded system with the growth of total wages in the pay-as-you-go financed state insurance pillar in the given country, was used. Even though Aaron (1997) did not recommend the privatisation of public pensions, under the given conditions in the given country – when Aaron's rule is applied – either a funded or pay-as-you-go system may seem more advantageous.

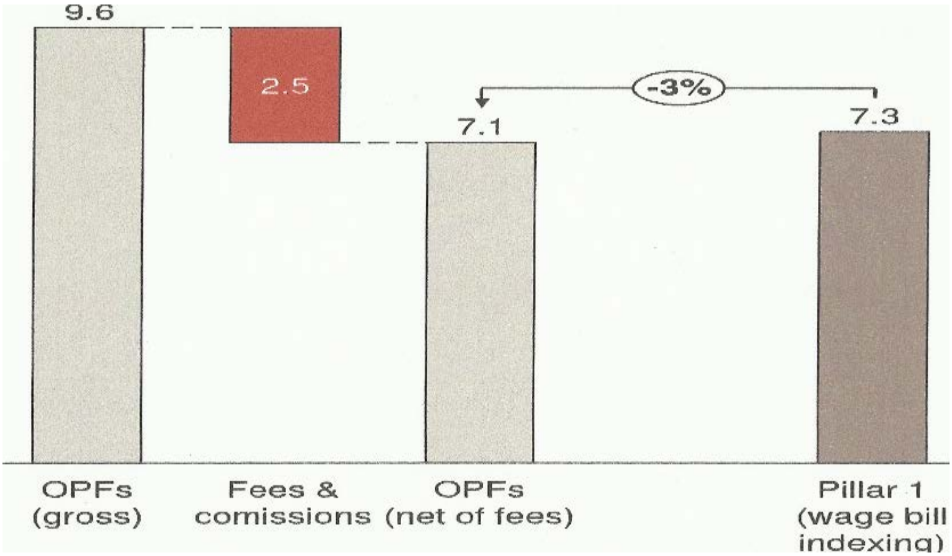
In times of intensive globalisation, the appreciation of pension savings has been rather high – and for this reason (not only private) pension funds were much advantaged. Thus, premiums of e.g. 17% from wages could "generate" pensions averaging around 70% of final wages, in the case of life-long employment. In contrast, in a pay-as-you-go financed insurance system, the same premiums may generate pensions at the level of 30-35% of wages. Chile was the pioneer in the privatisation of segmented systems of social pension insurance where the private pension companies promised pensions of 70% of wages for a contribution of 10% from wages; in practice, it may have been more important for switching to the new system that following the opt-out, employees had higher net wages by 11% on average – because of the lower premiums/contributions in the new system. The option to use a funded system must always be analysed in detail in the specific economic conditions of the given period. However, this is not accepted by neoliberal pension theory – as according to this theory the private sector has an absolute prevalence over social insurance and also autonomous (non-profit) occupational funds in the provision of old-age pensions.

The emphasis on the strict separation of the solidary and insurance pillars is a certain contribution of the neoliberal pension theory of the World Bank (James et al. 1994). The state can be the only provider of the solidary pillar. At the same time, the private sector can find its use in the funded system only.

Mandatory private pension savings were designed by the World Bank as the "second" (first by relevance) pension pillar. The reason given by the World Bank was not primarily an ideological one, but a factual one – with reference to the high negative investment yields of public pension funds in the 1980s in Peru, Turkey, Zambia and so on, these funds were used in fact by the state for other public purposes. Chile stood at the opposite end, with typical private pension companies that achieved gross investment yields of 12.3% on average, of which clients received 9.2% from the assets annually (James et al. 1994). This presented the entire professional argumentation – with the conclusion that private funds clearly beat public funds. However, serious professional analyses are performed differently. Certainly, investment yields are a significant argument, however they must be monitored over extended periods of time, and particularly in relevant countries and under relevant circumstances. Nevertheless, in the period of 25 years ending in 2007, real average investment yields for balanced portfolios in G7 countries and Sweden reached 7.3% from assets – for pension institutions, real net yield for clients amounted to 5% from their assets. The difference (2.3% from assets annually) represents the total margin of pension funds, including the margin of providers of life annuities (Whitehouse et al. 2009).

Overhead costs are a cardinal problem of private pension systems. The high margins of typical private pension institutions are given by their nature – these are competing systems requiring distribution networks and they must also respect various rules of solvency and caution, which is reflected in the amounts of the old-age pensions provided. Last but not least, the overhead costs of pension companies also include an investment yield for shareholders. The overhead costs of the "pay-out phase" alone (payment of pensions) represents 0.5-1% from assets during the entire period of savings and pay-out from the total of 2.3% annually. At the same time, the comparable costs of non-profit occupational pension funds in the Netherlands are at 0.15% from assets on average.

Figure 3: Internal rates of return on pillar 1 and pillar 2 (OPFs) accounts in Poland



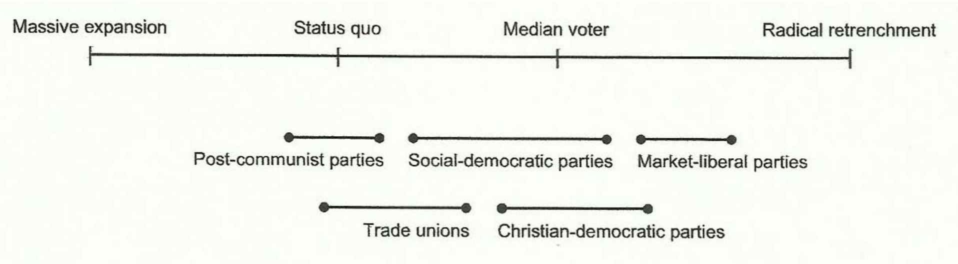
Source: Bielecki (2011)

The problem of high margins can be illustrated by the second pension pillar in Poland in 1999-2010: the fees of the Polish private pension companies amounted to 2.5% from assets annually, in the "savings phase" only – see Figure 3. The yields for clients of pension funds were even lower than the valorisation of client accounts in the first (NDC) pillar; thus, even Aaron's rule "does not work". Of course, one may object that this period covers only the first 12 years of existence of the second pillar, however, client recruitment was very successful, and the contribution to the second pillar stood at 7.3% from wages, in relation to other postcommunist countries, the Polish results were very positive and Poland was barely affected by the crisis. Kaczmarczyk (2014) claimed that the valorisation of client accounts stood at 6.8% in the NDC pillar and 6.6% in the second pillar in 2000-2012. Direct comparison of account valorisation in the private and public systems can only be done if both systems are of the DC (defined contribution) type and if the public NDC system (non-funded, pay-as-you-go financed DC) is sustainable in the long run.

If we wish to compare the overhead costs of private pension schemes and national public pay-as-you-go pension schemes, other than NDC, then we must apply different indicators – the overheads to total expenses ratio or overhead costs per participant. If we do not have this information, we can convert indicative overhead costs of pension funds, expressed as a percentage from assets, to a percentage from paid pensions and other expenses using a coefficient of 20:1. Roughly speaking, 1% from assets is equivalent to 20% from expenses. The overhead costs of state pension schemes are significantly lower than the overhead costs of private pension schemes, with the overhead costs of German social pension insurance provider Deutsche Rentenversicherung, at 1.2% from expenses in 2015, serving as a benchmark. The overhead costs of the Czech Social Security Administration which also operates other branches of social protection (which need relatively higher overhead costs than pensions) amounted to 1.26% from the total expenses in 2014. This implies that the benchmark for a private pension scheme that should fully or partially substitute public pensions is a margin of approximately 0.05% from assets annually. (The Swedish NDC system, which also manages extensive reserve funds, posted overhead costs of 1.11% from total expenses and the account management fee stood at 0.03% from assets annually in 2013.) This value can never be achieved by the private sector, despite potentially substantial state regulation. Thus, the neoliberal concept of the "second" pension pillar is not economically feasible, regardless of other incurred costs – specifically the costs of transition from the pay-as-you-go system to the funded system.

In recent years, it has become more and more evident that the high investment yields from the times of fast globalisation are over. The interest from government bonds has long been on steady decline and in a mid-term perspective, the real yield is negative. Investments in shares tend to return some 3% annually, inflation-adjusted. This approximately corresponds to conditions in the 1950s and 1960s, when funded social insurance systems were economically rationally transformed into pay-as-you-go systems.

Figure 4: Policy positions of typical political parties and trade unions towards pension reform in the context of demographic ageing and fiscal austerity



Source: Schludi (2003)

The selection of a retirement welfare regime continues to be an issue of public choice. The key role here is played by ideology, or general politics. The position of typical political parties and trade unions in some countries in Western Europe is outlined in Figure 4. It also shows the policies of post-communist parties, with trade unions finding themselves somewhere between the political orientation of social-democratic and post-communist parties. Christian-democratic parties are located to the right of social democrats; however, the politics of these parties may significantly overlap. The parties with neoliberal policies, exceptionally social-liberal policies, can be understood under "market-liberal parties".

In recent decades, pension theory and policy has significantly influenced the development of pension systems in many countries. The urgent need for the clear proliferation of each of the pension pillars is one of the findings. Each pension system should include a solidary pillar – but the question is how it should be designed and what role it should have in the system. The modern liberal pension system is dominated by flat-rate pensions as a tool for removing poverty in old age, supplemented by housing benefit or another means-tested pension.

Neoliberal policy includes mandatory private savings which are, however, more expensive than comparable public pensions, and for this reason the relevant countries put more and more emphasis on fundamental state regulation. At the same time, there has been a drop in gross investment yields, and so neoliberal pension policy may present ideological arguments only, offering private sector provision as an alternative at significantly higher costs.

At present, the pension policies of (Western) social-democratic and Christian-democratic parties are oriented at the "median" voter, or political "centre" respectively. In many aspects, the pension policies of post-communist parties have taken over the role of the social-democratic left, and the policy of large trade unions corresponds to the average of both policies. With a view to the prevailing available analyses of today's social political systems, Figure 5 may show a relative efficiency and equity of each of the pensions welfare regimes, with the criterion of efficiency being the employment rate; high equity is perceived as a low poverty risk and vice versa (Sapir 2005). However, in practice, this depends to great extent on specific parameters of individual systems, and in this regard, the figure shows the potential of each welfare regime primarily. Any system can be ruined by the wrong parameters, management or regulation.

Figure 5: Typology of pension welfare regimes

	High Efficiency		
Low equity	**Liberal regime**	**Social-democratic regime**	*High equity*
	Neoliberal regime	**Christian-democratic regime**	
	Low efficiency		

Source: Author, inspiration from Sapir (2005)

2 Reforms of Czech public pensions

Since 1996, the Czech state pension system has been referred to as "pension insurance", maybe because we had already had premiums for pension insurance for three years. During the tax reform (1993), premiums for pension insurance were introduced as part of social security premiums; the authors of the tax reform obviously expected the introduction of a comprehensive system of social insurance, with earnings-related benefits, separated from the state budget. The division of payments of social security premiums between employees and employers on a 25:75 ratio was the only departure from this social insurance model – which resulted from previous wage and tax relations, not from a conservative (Christian-democratic) welfare regime (where a 50:50 ratio is usually applied in insurance) or from a social-democratic welfare regime (which has a 0:100 ratio – all premiums are paid by the employer).

We have never introduced a comprehensive model of social pension insurance: since the 1950s, pensions have been and continue to be financed from the state budget and the "renewed" premiums for pension insurance are in principle a pension tax which is, from the systematic point of view, unnecessary. Moreover, there is no "pension account" in the state budget that would regulate expenditure of the state budget on pensions according to the development of the collected pension insurance premiums (MF 2012). The pensions provided under the Act on Pension Insurance are state pensions, being the (largest) public expenditure programme – with all of the potential pros and cons of this arrangement. The practical impact of this is that despite being mandatory state expenditure, the expenditure of the state budget on state pensions may be adjusted (newly announced) annually e. g. in the act on the state budget. If there were a risk of a high state budget deficit, there may be – depending on government policy – reductions in expenditure on pensions; and if this should happen, the annual pension indexation would "be the first to go".

The social pension insurance systems, which have separate rules on their financing and that which are relatively independent of the government and its fiscal policy in any given year, are an alternative to the system of tax-financed state pensions. In many countries with social pension insurance of the conservative (Christian-democratic) type, these systems are partially subsidised from the state budget, and there may be similar situations in countries with state pensions. However, in some countries, the system of universal social old-age insurance is in principle clearly separated from the state budget, and in crisis situations it is strictly stipulated (by law) as to how the sudden shortage of the receipts from premiums will be reflected in the valorisation of pension entitlements and into the indexations of paid-out pensions. The Norwegian system of social old-age insurance of the social-democratic type is part of the state budget, and for this reason, it is sometimes referred to as a system similar to NDC. (We do not share this opinion, as the design of NDC is critical.)

In the first half of the 1990s, the real value of an average old-age pension dropped by 20-25% in our country. Following the reform in 1996, this value has showed a slow increase. The design of pensions went through many changes during that time, one of them being that since 1996 all pensions consist of two parts: a universal "basic amount" and a partially earnings-related "percentage amount" of the pension.

The basic amount of pensions emerged through their transformation from the previous state compensatory benefit introduced in 1990 as a partial compensation for the increase in consumer prices as a result of the cancellation of subsidies on retail prices ("negative turnover tax"). The percentage amount of the old-age pension adopted the previous technique of reducing higher earnings when calculating the personal assessment base, but applied it more intensively towards pension equalisation, in contrast to in 1989. While previously employee earnings were reduced from the threshold of 75% of NAE, since 1996, the first bend point of CZK 5,000 was applicable, being equal to 52% of NAE. In 1989, the second bend point was at 181% of NAE, and since 1996 at CZK 10,000, i.e. about 103% of NAE. It can be said that the reduction coefficients were almost identical – until the first bend point without reduction, then the earnings exceeding the first bend point were reduced to one third (1989), or 30% (since 1996) and above the second bend point, the reduction was to a mere 10% of the earnings of the insured in both years.

During the first half of the 1990s, the equivalence principle for newly awarded old-age pensions was significantly toned down. While in 1989, these pensions were highly related to final salaries (a full pension based on previous average earnings stood at 85-90% of the net NAE), following the 1996 reform, the same pension for men was earnings-related only in one third and consisted of a percentage amount of the pension, which per se was earnings-related in one half, and a basic amount of the pension which was independent of earnings. Moreover, nobody can now explain why we have had the same basic amount for survivor and disability pensions. Both pension amounts are in fact two types of pension, two benefits. What logic do their parameters follow?

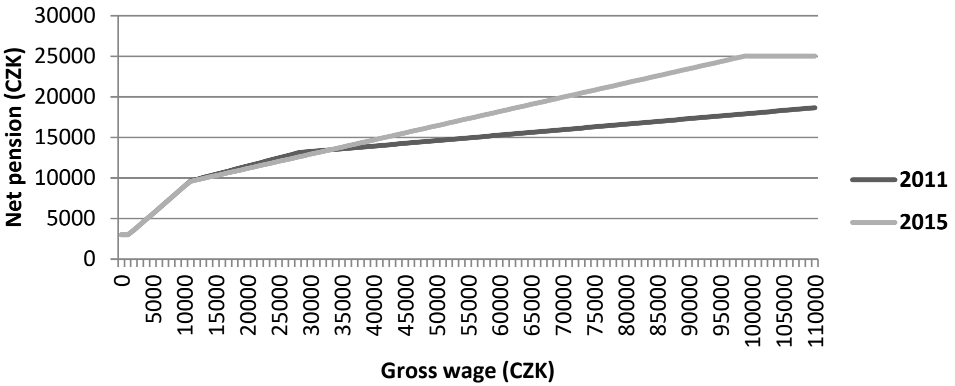
The system of bend points and subsequent reduction coefficients, valid since 1996 for the computation of the percentage amount of the old-age pensions, shows significant similarity to the American public pension scheme. In the US, similar bend points and coefficients are used: the first bend point is set at the level of 22% of NAE, the second at 132% and the third at 256% of NAE. For the pension calculation, 90% of earnings are included up to the first bend point, above this bend point 32% and above the second bend point 15% of earnings. Therefore, the reduction coefficients have been very close in the US and Czechia since 1996. The first US bend point standing at the half of the Czech one is the biggest difference. The American system of public pensions is characterised as Beveridgean. The Czech "pension insurance" is of the same type.

In 2010, the Constitutional Court of the Czech Republic ruled as follows: "The complicated design of the pension system is so non-transparent that it is utterly incomprehensible for its addressees" (Constitutional Court 2010). The Court declared the valid bend points and reduction coefficients unconstitutional, as "in their effects, and in combination with other parameters and existing design of the pension system they do not sufficiently guarantee constitutionally granted right to adequate material protection and result in an unacceptable inequality among distinct groups of pension insureds".

The ruling of the Czech Constitutional Court should be a major lesson learned for the Czech pension policy. The motivation was a complaint by one disabled pensioner about his low replacement rate, in particular 19% of his personal assessment base – which in his opinion was not adequate material protection, which is declared as a right in the Charter of Fundamental Rights and Freedoms. The claimant considered it an absolute inequality, in a situation when the average replacement rate for all old-age and disability pensions amounted to 44%. The Constitutional Court took his point, because since 1996 there had been a system of "public social insurance" in this area. The Court thus inferred the core of the system from the title of the act – on "pension insurance". Basically, it had no other choice, as neither the law nor the Constitution include a definition of "pension insurance". We might add that the title of the act should include one more adjective that would differentiate statutory "pension insurance" from private pension insurance. The term public pension insurance or social pension insurance is not legally defined in Czechia, not to mention the collocation "public social insurance". However, the Court did not refuse the intra-generation redistribution connected with the existence of bend points and reduction coefficients, even though it might have done so with regard to the development of systems of social pension insurance in Europe after World War Two. In this regard, the Constitutional Court might even refuse the existence of the basic amount of the pension, or "allow" it, but then refuse the bend points and reduction coefficients at the percentage amount of the pension. However, the Court did not dare to start such a dramatic revolution in the Czech "pension insurance". The Court "only" repealed Section 15 of the Act on Pension Insurance, containing the valid bend points used to determine the reduced personal assessment base for the purposes of calculating the percentage amount of the pension, and forced the government to act swiftly. The moral of this case is that the title and content of the act should always match. If we want to have social pension insurance, then the pensions should be in principle dependent on the paid premiums (or on the earnings from which the premiums were paid). From the perspective of modern pension theory and policy, or welfare regimes, a split of the Czech state old-age pensions into two pension pillars – a solidary pension and social pension insurance – would be an adequate solution.

The Nečas government did not opt for a major pension reform but for a change in several parameters of the existing "pension insurance". Thus, the government implemented a "small" pension reform which reintroduced bend points and subsequent reduction coefficients, setting such parameters in a manner so as to reinforce the principle of equivalence between the amounts of pensions and earnings. The government did so reluctantly ("a coerced step"), as it preferred a different policy – a gradual transition to flat-rate pension, e.g. at CZK 6,500. However, it is fully legitimate to propose (and to enforce using mechanisms of public choice) a flat-rate state pension as a single public system of state pensions, or as one or the two public pension pillars from the perspective of pension theory and policy (standard welfare regimes).

Figure 6: Net pension dependence on gross wage in 2011 and 2015 (45 years of insurance)



Source: author

In principle, during the small pension reform, the second bend point was cancelled, or more precisely, this bend point grew more than threefold: from 109% NAE in 2010 to 400% NAE in 2015, and moreover, it was in fact merged with the earnings threshold of 400% NAE. The key parameter for dependency of the pension on earnings is already the first bend point that has also been newly parametrised, to 44% NAE – see Figure 6. When calculating the percentage amount, earnings above this bend point are included at 26%, below this point 100%. The first bend point with low parameters (44% NAE and inclusion of 26% over 44% NAE) continues to be a decisive factor characterising Czech "pension insurance" as a predominantly non-insurance system of the Beveridge type. After the small pension reform, the percentage amount is slightly more transparent and understandable – due to the factual removal of one bend point. However, in this regard, no major reform has taken place, as solidarity still prevails over the insurance principle in the system of "pension insurance"; the ruling of the Constitutional Court has not been duly respected.

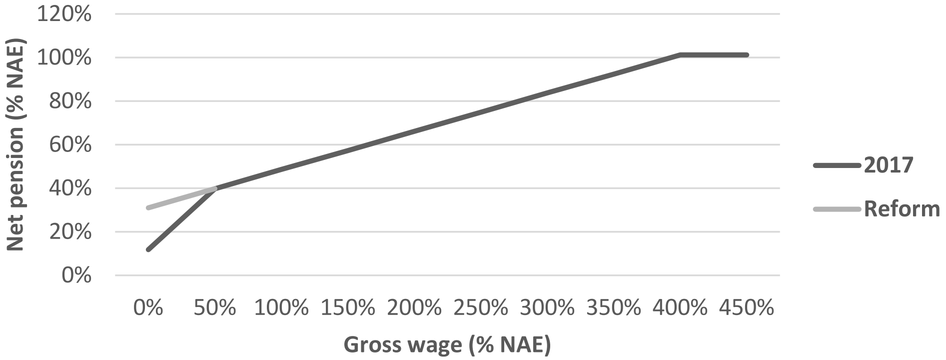
3 Basic alternatives for pension reform

The Czech basic amount at 9% of NAE is a rarity around the world. CZK 2,550 monthly (in 2017) is a significant amount for pensioners, however it is not enough to cover sustenance, not to mention housing needs. From this point of view, the basic amount should either be significantly increased or cancelled – depending on the (public) choice of the pension welfare regime.

The Czech basic amount of pensions is not comparable with base pension amounts in former worker pension insurance systems. The major difference lies in the fact that the former base amount was added to the percentage amount (fully earnings-related, naturally with no reduction applied) in the total undivided amount of the benefit when assessing pensions; the benefit was (or was not) indexed as a single amount. Regardless of what comes next, we should leave the "independent existence" of the basic amount of the pensions. One way or another, the former state compensatory cost-of-living allowance should have been integrated into pensions since 1996 (it was assumed by the government bill on basic pension insurance in 1994), for example, it could have been reflected in bend points and reduction coefficients. As this integration has not been achieved until now, we could or should do this now. And it may be even a "mere" parametric reform of the existing defined benefit system. The minimal alternative would be a mere adding up of the basic and percentage amounts following their calculation for the pension award and subsequent "handling" of the pension as a whole. Pensions of all kinds that are currently paid may be added up (in their entirety) as well. If nothing else, this would make the current indexation of Czech state pensions significantly easier … and it would become understandable. If discussion regarding the level of solidarity of our current state pensions was encouraged by this, it would only be beneficial.

A significant increase in the basic amount of the old-age pension to the level of a meaningful flat-rate pension, i.e. to at least 20% of NAE, is an alternative to the integration of the current basic amount of the old age pension into the (nonetheless) strongly Beveridgean "percentage amount". Such parametric reform can be easily carried out in our country – after the small pension reform when the second bend point was in principle cancelled. We may proceed from the calculation of pensions for earnings exceeding the first bend point: we will multiply the percentage assessment rate of 1.5% per year of insurance by the reduction rate of 26% to arrive at: 1.5 * 0.26% = 0.39%. If this 0.39% rate is applied to earnings up to the first bend point, we will arrive at the conclusion that the basic amount must be increased to some 31% of NAE (see Figure 7). The problem at hand (the meaningful adjustment of the calculation of the basic and percentage amounts of the old-age pension) is thus resolved by a simple parametric reform, which would significantly increase the basic amount and remove the bend points. This technical reform would be most beneficial to recipients of low pensions (or, better said, participants with a personal assessment base up to 44% of NAE). The advocates of "respectable" pensions would be happy. The conditions for the award of old-age pensions would remain the same. In addition to this parametric reform, the minimum amount of the percentage amount of pensions (CZK 770 monthly) could be cancelled and the design of the housing benefit for old-age pensioners could be adjusted accordingly. 31% of NAE under conditions of 2017 represents CZK 8,752 which is almost 80% of the at-risk-of-poverty threshold for individuals, and 105% of the same threshold for pensioner couples. After calculating the percentage amount of the pension, this alternative rationalising the calculation of newly awarded old-age pensions would include its "definitive" adding up to the basic amount of the newly awarded old-age pensions and we would further "work" with the total old-age pension only as in the previous alternative. Should anyone be interested in the implementation of this rationalisation alternative, we would also prepare a new method of calculating other pensions.

Figure 7: Possible simple rationalisation of pension calculation



Source: author

With the abovementioned results of a potential rationalisation of the current basic and percentage amounts of old-age pensions, a radical systemic solution in line with international pension theory and policy comes to mind: remove the basic amount of old-age pensions from the Czech "pension insurance" into a separate solidary pension pillar: transform the basic amount of old-age pensions (only for insureds who will meet other conditions for entitlement to this pension) to a flat-rate pension for all residents of approximately 31% of NAE (conditioned by, for example, at least 40 years of residence for full pension entitlement). The "remaining" universal social pension insurance will then yield a pension of 0.39% for each year of insurance. This proposal is fully in line with current international pension theory and policy.

The said transformation of the basic amount into a flat-rate pension of approximately 31% of NAE for all old-age pensioners or for all residents (with adequate length of stay or tax history in Czechia) is conceived not to principally change the level of solidarity in the existing basic pension pillar, in its combination with the housing benefit and the social assistance benefit. Public choice could modify the said parameters in both possible directions, by either strengthening or reducing the scope of solidarity, or the insurance principle of equivalence.

Under given circumstances, the social-democratic party may choose – for the already paradigmatic pension reform – one of the two alternatives of the social-democratic regime:

- A flat-rate pension for all seniors at approximately 31% of NAE plus social old-age insurance of the NDC type, or in the form of current defined benefit (DB) product.
- A social old-age insurance of the NDC type (or in the DB form) plus an income-tested ("guarantee") pension, directly connected to the insurance pension, following the Norwegian example above.

We take the liberty to expect support of a fundamental pension reform aimed at the transition to universal social pension insurance – if possible, without any compromises in the form of the existence of a solidary pension pillar, from a conservative (Christian-democratic) party. The social pension insurance may have a form of NDC or (N)DB, including the so-called point system (Germany, also seen in a deformed shape in Slovakia). From the model perspective, we may imagine a departure from existing universal pension insurance – as, even now we have different conditions e.g. for the self-employed; a separate system might have miners and other groups of employees, civil servants etc. At the same time, we may alternatively expect from a conservative (Christian-democratic) party that it would be interested in the development of occupational pension schemes, mainly on a voluntary basis.

Both social-democratic and conservative (Christian-democratic) parties may be recommended NDC as a system of modern social old-age insurance. In line with international experience, we recommend a one-step transition to the NDC system, while maintaining the existing old-age pension entitlements – not only in relation to the current old-age pension recipients, but also to make the greater pension reforms included in the alternative of a transition to the conservative (Christian-democratic) pension model easier. This transition cannot be achieved through gradual parametric reforms.

A modern liberal party can be recommended – as an initial paradigm reform – a transition to a flat-rate pension for all seniors at 31% of NAE plus social pension insurance of the NDC type. Such a programme would be sufficient for one electoral term; from the content perspective, it is a technical reform. In subsequent periods, the parameters could be adjusted to, for example, the development and needs of the economy.

In addition to the mentioned pension reform alternatives, it will be necessary or desirable to reform the housing benefit as well. The introduction of a flat-rate pension would significantly reduce the room for this social benefit. Even today, seniors use this benefit rarely – most of them are not sufficiently informed about it. Housing benefit needs a reform even now – it is neither rational or dignified to file a request for the allowance every quarter. The senior housing benefit should be a separate allowance, awarded and paid by the provider of old-age pensions for one year always, with an obligation to report significant changes during the year – in line with international experience and practice.

In relevant countries, flat-rate pensions are public expenditure programmes which are regularly evaluated with a view to the fulfilment of their role as the basic pension protection of the elderly in the given state. At the same time, the sustainability of this pillar is evaluated, in the broader context of the sustainability of public finances. This is also reflected in potential adjustments of the flat-rate pension parameters.

Across the world, systems of social pension insurance have undergone changes in recent decades that have strengthened links to life-long earnings, up to the NDC scheme with personal client accounts where valorisation of the paid premiums is performed, e.g. according to the development of the volume of nominal salaries in the economy, until the time when such pension entitlements are converted into old-age pensions using actuarial principles. When reconstructing a DB scheme to NDC, the system is significantly "cleared" from the different, even only politically motivated "innovations" of DB systems, such as dual statutory retirement ages, connected with dual minimum insurance periods. "From a political economy point of view the NDC pension scheme is by far superior to the traditional pension schemes, just for its rule-oriented institutional characteristics. … traditional parametric approach allows for discretionary measures, whereas the NDC rate of return is generated directly by economic and demographic factors and there is no administrative discretion involved other than what can be applied to fully funded schemes" (Chłoń-Domińczak & Mora 2006).

At the same time, it must be highlighted that NDC – as a system of universal social old-age insurance – is not isolated from public finances. Fiscal policy may thus significantly influence the accumulation phase of this system through specific parameters of the state budget contributions, particularly for non-contributory periods, but also through general subsidies of the social pension insurance system, as seen in Germany or Poland.

4 NDC: parameters and broader context

In June 2004, a team of experts from political parties was established, with Bezděk becoming the coordinator of the Executive Team for the preparation of documents. 'The main objective of the independent group of experts is to carry out calculations of the pension reform proposals put forward by the political parties. The Social Democrats propose a shift to a notional defined contribution (NDC) PAYG system. The Christian Democrats and Liberals suggest a parametric reform of the PAYG system and a possibility of partially opting out to a FF system. The Civic Democrats support the introduction of a flat-rate pension, while the Communists would like to continue with parametric reforms of the current PAYG system' (Mora 2005).

Hájek and Samek, the experts from the Czech Social-democratic Party (ČSSD), proposed to introduce NDC gradually in combination with a minimum pension at 29.45% (from 2040 27%) of NAE. The assignment to the Executive Team counted on increasing the retirement age to 65 years of age by 2030 (men), or 2033 (women). In the projection, the team concluded that there would be a drop in the replacement rate to 27% in 2100. The drop is caused in particular by fixing the statutory retirement age in circumstances of continuously extending life expectancy. The team also explicitly noted that it may be possible that people would postpone retirement with the aim of increasing their replacement rate. Thus, there may be cases of people voluntarily extending their real retirement age, which is promoted by the system through its settings. The longer contributory period will thus fully be reflected in the amount of the assessed pension (Bezděk et al. 2005). The text of the following paragraph is as follows: 'Approximately 60% of newly granted NDC pensions will be in the long run under the poverty line (approximately one quarter of the average salary in the economy)'. This sentence alone only reproduces the preceding text, but it fails to repeat the fundamental assumptions, that it concerns the end of the century and that the main reason for this is the capping of the retirement age. The artificially increased NDC overhead costs to 2.1% from the pension expenditure might be the secondary reason.

The NDC model or the model of any social old-age insurance as such has no relationship to any specified poverty line. However, an NDC pension is fully dependent on how high the premiums are and how long they will be paid for, under the given economic and demographic conditions.

In recent years, Bezděk has tried to disqualify NDC, referring to the analyses of the Executive Team: 'We considered the NDC system as early as in 2005. This system does not simply turn out well in Czech circumstances, because it would result in an enormous range of the pension amounts, and in addition, it would get the majority of people under the poverty line' (Táborský, 2010). However, nowhere in the world does NDC provide an 'enormous range of pension amounts', as in reality reasonable earnings caps are also used here; the World Bank recommends setting the earnings cap at 150-200% NAE. At the same time, NDC gets nobody under the poverty line, as this is not relevant to NDC; solidarity belongs to the solidary pillar. The NDC system cannot "turn out" badly, the NDC can only be fed with improper parameters and supplements, which precisely happened in projections in 2005. Clearly, increasing the retirement age only up to 65 years of age was an incorrect parameter.

Samek and Hájek argued similarly to Bezděk: 'The option to introduce NDC in the Czech Republic was analysed in detail based on the assignment by ČSSD already by the first Bezděk Commission in 2005 when it emerged that the taking of costly compensatory measures in the Czech Republic (e.g. introduction of the minimum pension) would result in the increased number of very low pensions (below the subsistence level) and thereby to the fall of many pensioners into poverty at the time of the pension award. The new Bezděk Commission took this into account and as a result, decided not to recommend the NDC reform to be deployed in the Czech Republic' (Samek & Hájek 2010).

The combination of a pension fully dependent on earnings or paid premiums with a relatively high minimum pension can be deemed problematic – in principle, the link between the pension and earnings disappears with most of the insured. For example, the means-tested pension benefit in the form of the guarantee pension in Norway or Sweden or similarly designed tested pensions e.g. in Finland or Chile, which obviously do not pose the practical problems argued by Bezděk, are something different. At the same time, 55% of pensioners in Sweden receive a guarantee pension, and in Australia the means-tested pension is received by 75% of the elderly. NDC and other products of social old-age insurance with fully earnings-related pensions may not pose problems in combination with the solidary pillar.

The assignment of the pension reform by ČSSD in 2005, evaluated by the Bezděk team, did not sufficiently correspond to the then state of the art and recommendations by the World Bank. For these reasons, the result arrived at by Bezděk team is irrelevant even today. NDC is a superior product. The second Bezděk Commission was dominated by lobbyists – and they clearly defied the transparent NDC with a relatively low premium rate: they preferred the current non-transparent Czech "pension insurance". The worse are public pensions, the more easily they explain that mandatory private pension savings, based on the principle of equivalence, must be introduced. The treatment of NDC system by the Bezděk team proves that every model of public (and private) pensions may fail, if it is fed (knowingly or unknowingly) with inappropriate parameters.

The NDC products and schemes have been extensively verified in practice in many countries, among others Sweden, Poland and Italy (Holzmann et al. 2012). Its advantage is that it basically automatically reflects the ageing of population in the amounts of the newly awarded pensions – using actuarial methods, smooth adjustments of pension mortality tables – and thus also the conversion rates used to convert the assets in the personal account into life pensions as a result. The automatic stabilisation mechanism (in excess of actuarial methods) may well provide stability to the NDC system under changing economic conditions (e.g. in times of economic downturn); however, it is already inconsistent with the social-democratic welfare regime (Hippe 2007) – paid (nominal) pensions cannot be reduced under this regime. A strict stabilisation mechanism is applied in Sweden and is currently under review; however, this NDC alternative apparently corresponds with a social-liberal model. In Norway, the NDC system is part of the state budget and the problem is automatically ruled out. The effort to introduce an automatic stabilisation mechanism of the given type would clearly slow down the start of the Czech pension reform, aimed to remedy the "pension insurance", either towards a "two-pillar" state system of the social-democratic type or towards a "single-pillar" social pension insurance of the abovementioned Christian-democratic type.

Any rationalisation or paradigm pension reform of the Czech public pensions must include the reform of premiums for (social) pension insurance; the new rate must correspond to the chosen welfare regime. We may imagine that the reform of premiums would be undertaken in advance, as part of the labour income tax reform. The taxation of the super-gross wage was also introduced in advance, and the decision regarding the neoliberal pension reform (at least about its basic parameters) had not been made, nor had the necessary one-step wage reform corresponding to the transfer of payment of all premiums to employees been prepared. However, the conditions for the introduction of social-democratic, Christian-democratic and modern liberal models of the financing of public pensions are much easier, as we have a low income tax rate for working activities, and low total premiums paid by employees – moreover, the premiums for health and social insurance may be "swapped" between employees and employers.

The tax reform needed for the rationalising pension reform, consisting of the transition to a flat-rate pension at 31% of NAE and a social old-age NDC scheme, is the easiest one. It follows from our calculations that this reform would only entail reducing the premiums for pension insurance by 11% from the wage, which by coincidence, is today's total rate of premiums for health and pension insurance paid by employees. Thus, there could be even more extensive rationalisation of premiums – "swapping" premiums for health insurance of 4.5% from the wages for premiums for pension insurance of 4.5% from the wage between the employee and the employer and subsequent compensation for the premiums of 11% from the wages paid by the employee, with wage income tax with an increased rate by 11% from the gross wages and simultaneous transition from the taxation of super-gross wages (15%) to the taxation of gross salary (equivalent rate of 20.1%) – so that the total rate of wage income tax would newly amount to 31.1% from the wages, which corresponds to a common level of personal income taxes in Western countries. The result of this "manoeuvre" would be payments of premiums exclusively by the employer, at the current amount. This tax reform is fully compatible with the social-democratic model of financing social pension insurance, and will not "hurt" others.

It cannot be ruled out that the transition to the NDC system supplemented by a means-tested pension, e.g. following the Norwegian example, will be more "demanding" on premium rates for NDC pension insurance under the same circumstances. However, at present, it is not useful at this point to elaborate a specification, because the public pension system also includes disability and survivor pensions, the concepts of which have not been dealt with. This is crucial if political parties and movements show a principal interest in a rationalising or paradigm pension reform, not to mention that each reform is subject to, for example, coalition negotiations, in which other conditions and objectives of the reform can be set, also in a much broader context.

The implementation of the outlined Christian-democratic pension reform appears to be a more difficult one – it would be a gradual transition to a system of social pension insurance, without a stand-alone solidary pillar. However, we recommend changing the paradigm only into the future – actually, the NDC system can specifically achieve that, and existing pension entitlements would be transferred to the balance of a personal account and the newly accrued insurance contributions would have a corresponding rate. The existing premium rate (28%) should be sufficient here – and in the future, standard corrections will be made anyway. If we were to follow the German example, then the state could finance some solidary elements in social pension insurance, or may even set limits on the total amount of premiums, and replace the missing funds in the social pension insurance scheme by subsidies from the state budget as a result. Regarding the related pension reform, we can imagine that with the current mind-set in the relevant political party, the party would agree to the integration of all premiums paid by the employee into the income tax, and that it would not require a one-off increase of gross wages by half of the needed premiums for social and health insurance (as it would be suitable for a conservative welfare regime). This tax reform also allows an increase in family benefits, including tax credits for children – we consider this to be meaningful and rational, as opposed to the idea of introducing differentiation of premiums for pension insurance by the number of sustained children. As the Germans officially say, family policy is not the job of pension insurance. The reflection of the costs of bringing up children in the design of income tax is fully in line with the Christian-democratic model of this taxation.

5 Occupational pensions and welfare regimes

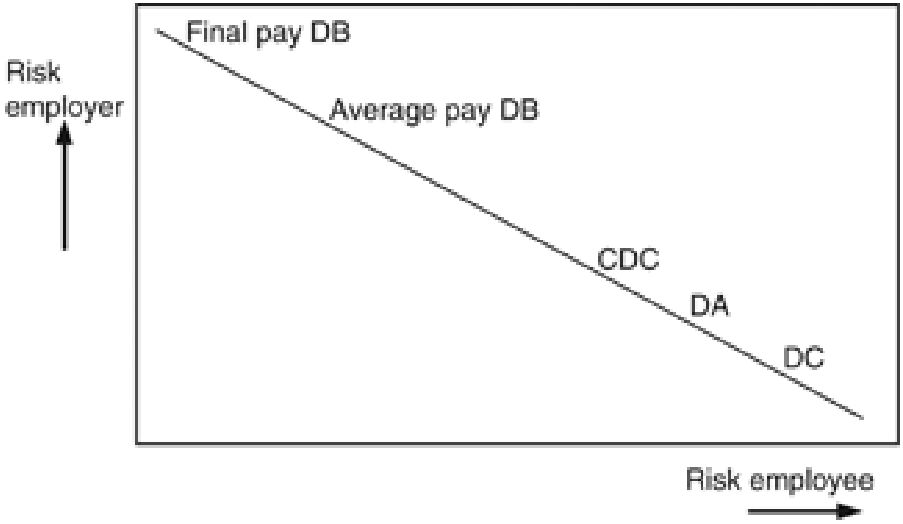
Occupational pensions are an independent pension pillar in both the social-democratic and conservative (Christian-democratic) pension welfare regimes. In Friedman's "pure" liberal model, occupational systems of all kinds are excluded as a non-effective waste of money – from the perspective of this economic school of thought, individual protection according to the needs and means of an individual is optimal. Employees should protect themselves for old age from their wages. However, in reality, the markets are not ideal in all aspects and it can be explained that liberal politicians in the West also "tolerate" the existence of occupational pensions. Neoliberals place occupational pensions among "private" pension systems together with personal pensions: for them, it is crucial for there to be mandatory private pension savings, originally in the systemic form of a hard compulsion, then also as a soft compulsion. To push through their theories, neoliberals have altered facts, including that Swiss mandatory occupational pensions (with very strong state regulation and the substantial importance of autonomous pension funds) were declared an alternative to the system of mandatory personal pensions; at the same time, moreover, in the exemplary Chile, the opt-out – voluntarily leaving the public pension system, without an option to return, with a significant role of intermediaries – was the main method of compulsion. Our "pure" liberal, the first Czech Prime Minister Klaus, refused occupational pension insurance for primarily ideological reasons.

In classic occupational systems of the DB type, the employer or relevant autonomous pension fund is responsible for the fulfilment of pension liabilities. Frequently, these systems are underfunded – they do not have sufficient reserves to cover all future pension entitlements in the sense of actuarial science. In Germany, there is a wide range of occupational pension schemes, with a pension promise, backed by book reserves matched only by company assets, being the most significant system. In many countries, in the spirit of (the prevailing) neoliberalism, there has been a transition to occupational DC systems, in which the employer becomes a "mere" contributor into the system and the investment risk is fully transferred to the employees, in such a form that the employees "may" (or must, in reality) choose from several funds with different model levels of investment risk. Overall, the transition from DB to DC schemes is in line with globalisation tendencies and is relatively beneficial when moving from one employer to another, taking all pension savings that might be used for other purposes to some extent. In the US, the prevailing practice is even such that when leaving the company, the employee may transfer their savings to their individual retirement account. With these reforms, or gradual transformations, there has been a reduction of the overall extent of occupational pensions in these countries – the coverage has reduced from 60% to 50% of employees and rates of contributions of employers in DC systems are about half of those in DB systems on average. The trade unions and some liberal politicians (former British Pensions Minister Webb) do not like these tendencies, and the developments (negotiations) in relevant countries tend towards the application of combined DB/DC systems.

DB products automatically include life-long pensions. In contrast, DC-type systems strictly separate the savings phase (investments) and (a potential) payment of an annuity: the pension savings are accumulated in the personal client account, and upon reaching retirement age, the client may ask for annuitisation of the capital in their account. Historically, occupational pensions "involve" the payment of pension: the transition to a DC system creates conditions not to use annuities as part of the pension system, or pillar, respectively. Usually, this is the common practice, unless – in exceptional cases – stipulated otherwise by state regulation or the agreement of employer and trade union associations. The Netherlands is an exception of this kind, where DB occupational pensions continue to prevail (approximately 90% of participants in this pension pillar have them) and where participants in the DC-type systems must be paid life-long pensions. These old-age pensions are on average 70% of the previous wage of the employee. In addition, there is a flat-rate pension benefit for residents on reaching the age of 65 that in principle guarantees 70% of the net minimum wage in the Netherlands (Schouten & Robinson 2012), which is approximately 30% of NAE.

The quasi-mandatory Dutch model of occupational pensions has aroused the interest of theoreticians and politicians in many countries. The reason is also that since the beginning of this century, there have been modifications of DB systems of these pensions, and these changes accelerated following the drop in investment yields across the entire world, resulting in the pressure to increase contribution rates for occupational pensions, which would be unbearable for the sphere of business. The main modification has been a limit on current contribution rates being put on the DB system (in 2012, the total average contribution rate was approximately 17.5% from the wages, 11.3% from the wage being paid by the employer) and subsequent partial transition of the investment risk (and risk of long life expectancy) to employees and pensioners. In 2013 the nominal paid-out pensions were even reduced. This – in the opinion of many authors – led to the creation of a combined DB + DC system, or the establishment of a stand-alone collective pension system (Bovenberg & Nijman 2009). There may be a variety of these combined products, or systems – depending on whether the products are closer to DB or DC, or are "somewhere in between". The two alternatives of these combined products are shown in Figure 8: one product is designated as CDC (collective DC), and the second as DA (defined ambition). The DB product is presented in two alternatives: the historically first product is derived from the final earnings, the newer DB product calculates the pension from the average whole-life (valorised) earnings.

Figure 8: Risk profile of pension products



Source: Schouten and Robinson (2012)

A clear majority of Dutch occupational pensions are collective schemes – in one system, everyone is secured by a single product – no one may select the "fund" and everybody is in one pension fund. This is a classic model of occupational pensions. Limiting or "defining" the contribution rates to occupational pensions has its systemic logic – these rates cannot be significantly, or "endlessly" increased, with a view to the competitiveness of the (Dutch) economy. A mere limit of the contribution (premium) rate represents a partial shift of the systemic risk to clients; however, as such, it does not mean a change in the insurance technique including the calculation of the pension amount. It is "only" a parametric reform of the DB system. In principle, such reforms may occur "automatically", according to the degree of matching of retirement entitlements by pension fund assets; we may assume that basically there will always be negotiations between representatives of employees and employers.

6 Occupational pensions: Czech policy

The system of occupational pensions was refused in our country by the Klaus government, not only for ideological reasons, but also due to concerns regarding asset-stripping under the conditions of the insufficient infrastructure of the state regulation of financial institutions. Later rightwing governments continued to refuse occupational pensions, to the extent that there was conflict with the EU that pushed a single EU market in (fully funded) occupational pensions by the so-called Pension Directive (Directive 2003/41/EC on the activities and supervision of `institutions for occupational retirement provision / IORPs/). In principle, the Czech government won this conflict, despite implementing the directive by law (amendment to act in 2011) on the activities of institutions of occupational pension insurance from the EU member states … in the territory of the Czech Republic,' with the reservations that these institutions may not be established in Czech territory and they are not entitled to a licence even if they meet all conditions. The state supervision (Czech National Bank) granted the registration, for example, to The VF Corporation UK Pension Plan; however, the activities of this institution are not clear.

The aim of the EU Pension Directive was to develop a single market in pension funds doing business under standard rules of comparable financial institutions – and thus to help to reduce overhead costs. (Therefore, the directive does not concern the main German system of occupational pensions with book reserves only.) Based on this directive, pan-European pension funds should be established, at the level of large international business groups. The resulting effects of the Pension Directive have been insignificant: in 2014 there were 75 active pan-European funds. A review of the directive has been prepared for some years. However, there may be a more significant problem than the EU officials might admit.

From previous times, we have had "retirement pay" and other benefits under special pension systems for professional military personnel, members of the security forces and firemen. In 2004, these occupational pensions were supplemented by an "annuity for the former President of the Republic", originally designed as "Lex Havel" (as a former dissident, he would have had a low old-age pension, which was in stark contrast with his merits regarding the establishment of the new democratic Czechoslovakia). The annuity of an ex-President is CZK 50,000 monthly; it is not related to their "standard" old-age pension. The annuity resembles a life insurance sui generis that corporations purchase for their top managers according to the classic rules of occupational pensions.

The Czech retirement pay is intended for:

- former members of the Police of the Czech Republic, Fire Rescue System of the Czech Republic, Customs Office of the Czech Republic, Prison Services of the Czech Republic, General Inspection of Security Corps, Security Intelligence Service and Office for International Relationships and Information,
- former military personnel of the Army of the Czech Republic.

The basic concept and design of the retirement pay for these two groups of state employees is identical; however the parameters of the "basic amount" and "supplement" of the retirement pay are rather different (God knows why): the basic amount for the first group after 15 years of service amounts to 5%, while for soldiers it is 20% of the average gross salary (GS). The "supplement" is provided for each additional year of service: for the 16th-20th years of service by 6.2% GS for the first group and 3% GS for soldiers; from the 21st year by 2.5%, or 2% GS and from the 27th year of service for the first group and for soldiers already from the 25th year of service, there is a 1% GS supplement. The gross salary is calculated from the salary for the last calendar year, or for the last three calendar years, if this is more beneficial for the recipient of the retirement pay.

The retirement pay is undoubtedly an occupational pension intended for the abovementioned groups of state employees, with financing from standard budgetary expenditures of the relevant departments, as it is common in the civil servant type of conservative pension welfare regime. The retirement pay is designed as a retirement old-age pension, its amount is fully dependent on the final salary and no retirement age is set. The previous "service pay" was paid until reaching the retirement age (of men) of 60 years, and had a character of "a pre-retirement pension" similarly to the temporary supplementary pension of federal employees (FERS Supplement) in the US. Moreover, the current Czech retirement pay is tied to the old-age pension from the basic "pension insurance": it is paid in a reduced or zero amount once the old-age pension is awarded; if higher, in the amount of the difference between the retirement pay and old-age pension.

The current effort of some of our politicians to reduce unilaterally the retirement age of miners and other professions distorts the existing universal pension system; higher pensions for miners are requested at the expenses of others. Of course, money comes first after all, and we may analyse, for example, the amount of miners' wages and conclude that the wages do not adequately reflect the increased occupational hazards; it would surely be interesting, but we would go back to the previous system where the communist elite (of the more and more problematic quality) tended to decide everything centrally. The system as a whole did not prove successful, and the wages and pensions of miners were no exception in this regard. Whether we like it or not, in large measure this must be left on the market, on the responsibility and agreement of social partners. All miners know and knew (or should have known) what they were going into – and after all, it is always about who paid and spent what, and alternatively whether there is or is not an extreme situation that the industry or company cannot handle alone. Additional increases of pension entitlements may only be part of a phase-out programme of the given industry or region, but not part of a universal pension insurance system. As part of this potential programme, money could be "poured into" a NDC or FDC social insurance (to the pension accounts of miners), if we had such a system in place. (How many things can a good flexible basic pension system be good for!)

The proposals for the differentiation of the otherwise universal pension protection system, or for subsidising the pensions of miners or similar professions, should definitely be supplemented by analysis of the contributions of the employer for the supplementary pension insurance and private life insurance of miners and similar professions in the last two decades. Since 1995, for example, the Miner Pension Fund Ostrava has been active: in 2005 it had 19,000 clients – employees of the OKD Mining Co. for the most part. The shareholders of the Miner Pension Fund, OKD and Trade Union of Workers in Mining Industry, Geology and Oil Industry sold the fund to the ČSOB Group. It was declared that OKD would continue to provide contributions to supplementary pension insurance to its employees who were clients of the fund, in the same amount as previously (Tománek 2005). The clients of this fund had assets of approximately CZK 1 billion at that time. The Miner Pension Fund Ostrava merged with ČSOB Penzijní fond Progres plc at the end of 2006.

The most suitable solution for the pensions of miners and similar professions is the occupational pension. We may refer to the existing special pension systems for professional military personnel, members of security forces and firemen. The general reasoning for the existence of these special schemes is identical – dangerous and arduous professions are reflected in lower life expectancy. These pension schemes should be financed from contributions by the employers and employees (Zaidi & Whitehouse 2009). The extent to which occupational pension schemes are or should be used is a matter of the pension welfare regime, or the functioning of the labour market.

In developed Western countries, there has been a significant differentiation of systems of occupational pensions: in some countries, the original voluntary and differentiated system, related to segmented systems of basic pension protection, has been kept in principle (Germany, conservative system); in other countries, occupational pensions have become quasi-mandatory on a collective basis (the Netherlands, Sweden, Finland, social-democratic orientation) or have in a way become mandatory based on workplace pensions (Australia, the UK, strongly regulated neoliberalism, or social-liberal system); and last but not least, we have experienced a mix of occupational and personal pensions with robust tax support (the US, neoliberalism). Thus, the differentiation of occupational pensions is also in principle given by state social policy: the choice of pension welfare regime. The collective systems (products) incline towards a segmented social insurance and achieve significantly higher pensions under identical conditions. More or less, neoliberal policy is connected with the high margins of providers of private savings and annuities with an effort to regulate products and to use the entire system of occupational pensions to reduce the overhead costs, to a great extent in line with behavioural economics; this system also tends to include state pension companies as providers of low-cost pensions savings (NEST in the UK).

In our country, occupational pension schemes may, with a relative ease, provide additional protection for hazardous professions, such as mining or the armed forces where the universal pension insurance may be (albeit subjectively) deemed insufficient, for example regarding a universal retirement age. From the perspective of universalism, we may say mockingly that all exceptions are unnecessary, as social insurance also comprises disability insurance – and it is questionable whether the special needs of miners or soldiers, for example, are (and how) covered by disability, accident or survivor or funeral insurance. It is like this, however: special pension systems also exist in our country, specifically in the form of the abovementioned special retirement pay for professional military and police personnel and firemen, and it is also common abroad. A typical and significant feature of these supplementary systems is the fact that they are financed (fully or to a great extent) by employers, and are fully reflected in the costs of relevant businesses and institutions – the financing is transparent and there is also pressure for economic rationality related to the fact that contributions to social security are part of labour costs and may thus influence, for example, the coal market in the given country or region. Such occupational systems may also serve as a defence against the potentially endless requirements of different, more "risky" professions for pension benefits in the (originally) universal basic pension system. In principle, occupational pensions must be negotiated by employees (or trade unions) with employers – preferably as part of collective bargaining. This policy should be fully supported by parties with social-democratic and Christian-democratic orientation, too.

The major amendment of the Act "on institutions of occupational pension insurance from the EU member states … in the territory of the Czech Republic" in line with the spirit of the EU Pension Directive may pose a major political issue. These institutions should be allowed to have establishments in the Czech territory, and at the same time, the government should declare that it would be meaningful to establish such institutions directly in our country, mostly in the form of autonomous pension funds providing a single product of a collective type, with a clearly defined ambition in the broadest sense of the word. The subject-matter of the debate may be, for example, the tax regime of occupational pensions – in line with (potential) differences between the social-democratic and Christian-democratic models. Here, it would be useful to clarify beforehand the issue of taxation of (all) pensions which we neglect in this paper.

The "pre-retirement pension" (*předdůchod*) is a slang term for an option to receive a temporary pension from the supplementary pension savings, including the whole state support, up to five years earlier, before the client reaches the statutory retirement age for entitlement to the old-age pension. The minimum amount of a monthly pre-retirement pension is set at 30% of NAE (2017: CZK 8,100). For the term during which the pre-retirement pension is paid (2-5 years), the state pays premiums for health insurance for the client, if the client is no longer employed. When the "pre-retirement pension" is received, one may work, and before filing the request for the old-age pensions, the participant decides whether they want to include income from work from the period when they were receiving the pre-retirement pension.

The idea to introduce the "pre-retirement pension" originated in the trade union headquarters (ČMKOS), with the main purpose being to create an additional mandatory private system of pension protection for miners and those in other physically demanding professions, or for professions classified under the relevant hygienic regulations into the categories III. and IV. of hazard. This should concern approximately 350,000 to 400,000 employees. The contributions to pre-retirement pensions (with payment up to 5 years) ought to be paid by employers (with state support) into a special account with a private pension fund. Therefore, these should be mandatory occupational pensions for a selected group of professions, paid out before the proper old-age retirement, provision reserved for private pension companies. Such a system can be envisaged, and there are some alternatives abroad; generally speaking, an autonomous pension fund or the state could or should be the provider.

The concept of pre-retirement pension approved by the government and parliament has resulted from the tripartite agreement, but there was not much left of the ČMKOS proposal. The pre-retirement pension is not mandatory and applies to all participants in supplementary pension savings. Low volumes of savings in the accounts of pension companies pose major limitations; for a pre-retirement pension for 5 years, one must have at least CZK 486,000 (for 2 years at least CZK 194,400). Therefore, Prouza (2012) rightfully referred to pre-retirement pensions as another scam. Hájková wrote of a "sexy façade": "At first glance, the setting of pre-retirement pension seems attractive. Just imagine, you can retire five years before reaching the retirement age. If you find yourself in a demanding situation after losing a job or due to worsened physical conditions, you sort things out with a relative ease by applying for a pre-retirement pension. … Another sexy feature of pre-retirement pensions is the fact that from the health insurance perspective, you will be considered 'state insured' and you would not pay health insurance premiums for the term of the pre-retirement. The state will pay for you." However, her final words are very illustrative: "Originally, the pre-retirement pension should have been intended for those who are not able to work until retirement age due to their physically demanding profession. Now, it will be available to everyone, only if they have enough money. However, this will probably not concern those who work hard (and often earn low wages), which significantly limits their opportunities to generate significant savings) in professions with high physical demands." (Hájková 2012).

Because of pre-retirement pensions, the "retirement age" has also become more complicated in the third pension pillar: instead of a single and understandable retirement age of 60 years, the age was set using the following formula for individual years of birth: statutory retirement age for men participating in "pension insurance" in the given calendar year less 5 years (in 2017: 58 years + 2 months). This ought to follow the logic of pre-retirement pensions, but this logic would gradually dissipate, because the increasing statutory retirement age of men will reach 65 years and the lower retirement age for the pre-retirement pension would reach 60 years, the current valid early retirement age. Then the original arguments for pre-retirement pensions would became utterly pointless. Based on the proposal of the Association of Pension Companies, the link of the "retirement age" in the supplementary pension savings to the increasing statutory retirement age of men was cancelled – and we returned to 60 years. Nothing would happen if we only reduced this age to 58 years "because of miners" and then it would be clear to everyone that the existing concept of the Czech "pre-retirement pensions" is a bad joke. As of 30 September 2016, 1,585 pre-retirement pensions were paid out. Our recommendation is simple: Do not provide new pre-retirement pensions – it is an unnecessary complication. Occupational pensions cannot be replaced by anything in this regard.

Preferably, occupational pensions should be provided by single-product autonomous pension funds. Outsourcing is possible, of course. In our conditions, it is useful to prepare a sample pension plan and fund compliant with the Pension Directive.

Conclusions

Czechoslovak pensions were highly earnings-related. The reform of 1996 confirmed the liberal policy aiming to equalise pensions. The Executive Team for the reform preparation (2005) analysed each of the political parties' reform concepts. The NDC system proposed by the Social-democratic Party was not sufficiently compliant with the internationally recommended concept and lobbyists keep abusing it to this day, as the fundamental rationalisation of the current Czech system of public pensions prevents them from promoting the neoliberal concept of personal pensions. Discussions of the NDC system confirm that every pension system can be "killed" by improper parameters.

In principle, Czechia has a universal public pension "system" financed from the state budget, which is non-transparent and is in fact an incomprehensible mix of solidary and insurance pillars that may not fall under any standard welfare regime. A rationalisation (technical) reform of this pension pillar in pursuit of its transparency is relatively easy: a) introduce a flat-rate pension at approximately 31% of average national earnings, b) create a universal social pension insurance financed from premiums. Lobbyists and advocates of the "diversification" of the current system of "pension insurance" have strongly opposed any similar rationalisation. Refusal of a paradigm, albeit technical reform of public pensions is and continues to be part of neoliberal policy, or a token of clientelism, as if they were following the thesis "the worse the better": the worse the public pensions, the more mandatory private pension savings are needed, because they are related to equivalence (not solidarity).

There is already a "space" for occupational pensions with regard to the existence of arduous occupations. Autonomous pensions funds cannot be seated in our country, even though they are the easiest solution for specific sectors of the economy (e.g. the mining industry). Their introduction should primarily be strongly supported by the trade unions, as this is part of their "job description".

Generally, it is true that each political party should incline towards one of the pension welfare regimes – and a (potential) government coalition should seek to implement a major rationalising reform based on independent analyses of the current situation of the Czech pension system. A social-democratic party should support universal NDC social insurance, a solidary pension pillar, including annual housing benefit for seniors, and occupational pensions based on collective agreements. A modern liberal party should be oriented towards a flat-rate pension supplemented by a means-tested benefit for seniors (including housing benefit) and respect the existence of a supplementary pillar of social insurance or occupational pensions. The conservatives (Christian democrats) should support fully earnings-related social pension insurance, supplemented by occupational pensions and last but not least by a more effective social assistance benefit for seniors and annual housing benefit for the elderly. Other parties should in principle choose any of these concepts (modern liberal, social-democratic or Christian-democratic). The neoliberal pension welfare regime should "satisfy" only a few (involved) private financial companies; it is ineffective from the point of view of the national economy.

The minimum programme, suitable for all parties and movements, is the rationalisation of the existing system, which is desirable for the sake of the comprehensibility of the system. This includes the removal of the two pension "amounts" that exist in parallel, and the merger of the wage income tax and premiums paid by employees which is facilitated by the current prevalent solidarity in the Czech pension "insurance" (which is *contradictio in adiecto*). If the parties and movements represented in Parliament find the courage to implement a paradigm reform of Czech public pensions then we may – in line with international recommendations – advise a transition to a modern system of NDC social insurance. Gradual, parametric reforms of defined benefit systems of social pension insurance usually bring nothing, because the energy required for the reform is "spent" in endless debates about the reform of individual parameters.

Acknowledgements

The paper was prepared within the internal project of the University of Finance and Administration "Current trends in the development of financial markets" (No. 7773), supported by institutional support for long-term strategic development of the research organisation in 2017.

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